Bobolink (*Dolichonyx oryzivorus*)

Species Status Statement.

Distribution

Bobolink is a medium sized, highly migratory songbird that breeds across the northern U.S. and southern Canada. Breeding populations overall are continuous in the east, but patchily distributed in the southwestern portion of its range (Utah, Nevada, Washington, and Arizona). Individuals are typically found in historical wet meadows, now mostly converted to agricultural uses, in the northern third of Utah, as well as in Washington County. These birds migrate to southern South America during the non-breeding season, in one of the longest migrations known for songbirds (Renfrew et al. 2015, eBird 2019).

Table 1. Utah counties currently occupied by this species (eBird and Utah NHP)

Bobolink	
BOX ELDER	SUMMIT
CACHE	TOOELE
DAVIS	UINTAH
JUAB	UTAH
MORGAN	WASATCH
RICH	WASHINGTON
SALT LAKE	WAYNE
SAN JUAN	WEBER

Abundance and Trends

The global population of bobolink is estimated at 10 million, with 7.6 million in the U.S. (Partners in Flight 2019a). Bobolink has shown a population decline of 59% from 1970 to 2014 (Rosenberg et al. 2016). Partners in Flight (2019a) has given bobolink a High Regional Concern Score of 15 (medium). At the current estimated rate of decline, bobolink populations will decline by another 50% in 48 years (Partners in Flight 2019b).

Breeding Bird Survey (BBS) results for the Western BBS Region show a decline of -3.0% (-5.4 to -1.4) per year from 1966 to 2015, and a non-significant decline of -3.3% (95% CI: -8.6 to 0.6) per year from 2005 to 2015, though these estimated declines should be taken with caution due to low abundance (<1.0 birds/route; Sauer et al. 2017). The Utah population of bobolink is estimated to be 3,700 individuals (Partners in Flight 2019a).

Currently the bobolink is:

- Identified by the U.S. Fish and Wildlife Service as a priority species at the Bird Conservation Region scales on the Birds of Conservation Concern list (draft U.S. Fish and Wildlife Service 2017)
- Partners in Flight list it as “REVERSE DECLINE: Yellow Watch List ‘D’ – Species with population declines and moderate to high threats” (Rosenberg et al. 2016)

Statement of Habitat Needs and Threats to the Species.

Habitat Needs

Bobolink is a grassland-dependent species. Originally found in the tallgrass and mixed-grass prairies of the Great Plains, this species has adapted to using irrigated fields, wet meadows, and CRP-enrolled lands that can mimic the structure of native grasslands (Renfrew et al. 2015). Precise habitat characteristics have not been well studied in the western portion of their range. In the eastern states, bobolinks nest most successfully in large (>30 ha) and old (>8 yr) hayfields with high proportions of grass and forbs, and low proportions of alfalfa (Bollinger and Gavin 1992). Bobolinks tend to favor non-forested landscapes (Davis et al. 2013) and are found in higher densities in larger hayfields than smaller ones of comparable structure (Bollinger and Gavin 1992). Bobolinks are also found in higher numbers with taller and denser herbaceous vegetation (Winter et al. 2005) During the breeding season, bobolinks feed primarily on insects and seeds found in these fields and wet meadows.

Bobolinks are sensitive to fragmentation, and place nests away from edges and areas prone to flooding (Renfrew et al. 2015). In Canada, bobolink abundance increased in seeded grasslands surrounded by native grasslands (Davis et al. 2013). Nests are placed on the ground, usually under tall vegetation, especially forbs (Renfrew et al. 2015).

Threats to the Species

Habitat loss and conversion is the biggest threat to this species (Renfrew et al. 2015). In Utah, individuals are mostly found in active agricultural areas with irrigated fields, relict wet meadows (eBird 2019). Currently, suitable bobolink habitat is limited. With wet meadows making up less than 0.5% of Utah’s land cover (Edwards et al. 1995), and as flood irrigation becomes less common and land is converted out of agriculture and related conservation programs (e.g., CRP), the remaining populations of bobolink in Utah may severely decline or disappear.

Hayfields (consisting of mixed grasses and forbs), particularly those irrigated or flooded, can provide suitable breeding habitats if cutting is done after the breeding period. Cutting of hay during nesting may cause destruction of nests or nest abandonment by the adults. Loss of hay cover may also leave fledgling bobolinks vulnerable to predation (Bollinger et al. 1990). Conversion of traditional grass hayfields to alfalfa fields also poses threats to bobolinks, as alfalfa cover is unsuitable to bobolink reproduction (Bollinger and Gavin 1992). Bobolink success in Utah habitats depends primarily on conservation of breeding habitat, timing of hay cutting, composition of hay fields, and application timing of pesticides (Renfrew et al. 2015).

Table 2. Summary of a Utah threat assessment and prioritization completed in 2014. This assessment applies to the species' entire distribution within Utah. For species that also occur elsewhere, this assessment applies only to the portion of their distribution within Utah. The full threat assessment provides more information including lower-ranked threats, crucial data gaps, methods, and definitions (UDWR 2015; Salafsky et al. 2008).

Bobolink
No Identified Threats - Data Gaps Only

Rationale for Designation.

Bobolink is one of the few grassland-dependent species of concern that breed in Utah. This group has shown some of the largest population declines of any group since BBS began estimating trends for North American birds. Large-scale surveys like the BBS have not been adequate for estimating bobolink population sizes and trends at the state level for Utah, therefore we lack the basic information needed to be able to assess its status in the state. Uncertainty about the effects of land-use change on bobolink, as the human population increases in Utah, is also a factor in protecting this species.

Economic Impacts of Sensitive Species Designation.

Sensitive species designation is intended to facilitate management of this species, prevent Endangered Species Act listing, and lessen related economic impacts. An ESA listing of bobolink would affect agricultural practices, and the management and development of water resources, in northern Utah and Washington County. There would also be increased costs of regulatory compliance for many land-use decisions and mitigation costs.

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